

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application.

Listing of Claims:

1. (Currently Amended) A wearing parts system for a tool of an earth moving machine comprising:

a holder part, attached to the tool and comprising a holder beak; and

a ~~wearing and/or replacement part, configured to be disposed on the holder beak,~~
comprising a hollow, configured to grip the ~~holder beak,~~ holder beak such that said holder beak is at least partially fitted, along a line of symmetry extending longitudinally through the holder beak, into said replacement part when the wearing and/or replacement part is disposed on the holder beak, and further configured to be fixed ~~thereto~~ therein by means of a locking mechanism inserted through both the holder part and the ~~wearing and/or replacement part~~ substantially perpendicularly with respect to the line of symmetry, the holder beak and the hollow having

a plurality of mutually interacting pairs of contact zones elements, each comprising at least two mutually interacting contact faces, disposed on each of said holder part and said replacement part, substantially symmetrically offset from the line of symmetry, comprising:

~~one or more of which are configured to interact with one another after a certain predetermined wear, wherein one of the contact faces is disposed on the holder part and the other of the contact faces is disposed on the wearing and/or replacement part and are configured to absorb forces, wherein the contact zones comprise:~~

at least one pair of front contact zones disposed at the distal end of the holder beak and substantially symmetrically disposed on either side of the ~~longitudinal line of symmetry of the wearing parts system,~~ and ~~at least one~~

at least one pair of rear contact zones configured to increasingly taper proximally with respect to the line of symmetry and form a defined angle with and disposed at the proximal end of the holder beak and substantially symmetrically disposed on either side of the ~~longitudinal line of symmetry; and~~

~~at least one pair of front and rear contact zones are disposed laterally offset in pairs and on either side of the line of symmetry; and~~

~~the contact zones further comprising at least one front contact zone such that at least two of the rear contact zones comprise at least two interacting joints comprising radial projections extending from the holder beak from each of said at least one pair of rear contact zones, and corresponding radial recesses disposed in the replacement part into each of said at least one pair of rear contact zones, wherein said at least two interacting joints are configured to have provide a common rotational axis, wherein the interacting joints each comprise one or more recesses and one or more projections, wherein each of the recesses and projections comprise a respective contact face, disposed one on each of the holder part and the wearing and/or replacement parts, wherein the common rotational axis is arranged between them substantially perpendicular to the direction of fitting of the locking device and substantially perpendicular to the insertion path of said locking mechanism into said holder part and the replacement part, wherein in that the recesses are made on the wearing and/or replacement part and each comprise a respective end face and in that recess end face, and the projections are disposed on the holder part such that they each comprise a respective projection end face, wherein each the contact faces recess end face and projection end face are configured to interact so as to limit the pushing-on of the wearing and/or replacement part over the holder part and further configured to ensure that the contact area between the contact faces each corresponding recess end face and projection end face is an initially small contact area on the recesses and on the projections will be made, primarily, at a common centre-center of each of said radial projections of the end faces and, and secondarily, as the wear has progressed, progressed to said recess end face about the common-centre, center, that the contact area between each corresponding recess end face and projection end face is into an increasingly large contact zone increased to a larger contact area, while at the same time the distance between the end faces of the interacting joints at their common centre-center is equal to zero or substantially less than the distance between the end faces of the collars such that there is a play 24 between the collars is considerable.~~

2. (Currently Amended) Wearing parts system according to claim 1, wherein the locking mechanism comprises:

at least one locking device, comprising at least a first, a second and a third section wherein the first section is configured to have the widest cross section and the third section is configured to have the smallest cross section among the first, second and third sections, configured to be placed through interacting openings disposed within both the holder part and the ~~wearing and/or replacement part, and further configured to comprise at least a first, a second and a third section wherein the first section is configured to have the widest cross section and the third section is configured to have the smallest cross section among the first, second and third sections,~~ such that when the locking device is placed through the openings in the ~~wearing and/or replacement part and the holder part, three longitudinal sections are defined in the longitudinal direction of the openings, in which the first section of the locking device opening through which the locking device is first inserted is configured to have the widest cross section, whilst the third section of the locking device opening through which the locking device is lastly inserted is configured to have the smallest cross-sectional section.~~

3. (Previously Presented) Wearing parts system according to claim 2, wherein the locking device comprises a rigid locking device body having an elastic material inlaid into the locking device body, wherein the material is configured to load at least one movable engagement part toward a predetermined position.

4. (Currently Amended) Wearing parts system according to claim 2, wherein the locking device comprises at least two movable engagement parts loaded by elastic material, wherein the engagement parts are constituted by a securing plate for detachable blocking of the locking device in a predetermined locking position, and a compression plate configured to load via its elastic material the contact ~~zones~~ elements of the ~~wearing and/or replacement part and of the holder part against each other.~~

5. (Previously Presented) Wearing parts system according to claim 2, wherein the locking device comprises a hollow for the elastic material, wherein the hollow has a first gap opening configured to allow an expansion of the elastic material when the elastic material is subjected to load during the removal of the locking device, and one or more further gap openings configured to project beyond the body of the locking device when the locking device is free from external loads.

6. (Previously Presented) Wearing parts system according to claim 2, wherein the locking device opening through the holder beak of the holder part comprises a first portion in the direction of fitting which is at least wider in a first direction than a corresponding second portion of the body of the fitted locking device, which portion of the locking device opening comprises a first segment and a second segment, wherein the first segment, which is wider than the corresponding locking device body in the first direction, comprises a cavity configured to secure plate in an extended position blocking the locking device, whilst the second segment comprises or is configured to form a space configured to allow an expansion of the elastically deformable resilient material when the second segment is subjected to load during the removal of the locking device.

7. (Previously Presented) Wearing parts system according to claim 2, further comprising a pin disposed on the inner side of the roof of the hood and configured to connect to the locking device opening through the hood of the tine part, and further configured to affix to the securing plate of the locking device.

8. (Previously Presented) Wearing parts system according to claim 7, wherein a bevel, configured to widen downward in the direction of fitting of the locking device, is disposed on that side of the locking device body facing toward the said pin, and configured such that the locking device body and the pin are free from contact with each other.

9. (Previously Presented) Wearing parts system according to claim 2, wherein a cross section through the body of the fitted locking device level with the inner side of the roof of the hood consists of a homogeneous, solid, unbroken cross section or a cross section which is unbroken to the extent of at least 50% or more.

10. (Currently Amended) Wearing parts system according to claim 2, wherein a leverage ratio from the line of symmetry to the common ~~centre~~ center between the hood of the tine part and the holder part is equal to zero or less than the radius of the one or more projections.

11. (Cancelled)

12. (Previously Presented) Wearing parts system according to claim 10, wherein the radius for respective one or more recesses are larger than the radius for corresponding one or more projections.

13. (Currently Amended) Wearing parts system according to claim 2, wherein ~~at least~~ the two rear contact zones ~~are provided, which comprise~~ are configured with a greater angle of inclination to the line of symmetry of an inner, longitudinal peripheral line along the locking device opening through the beak than of an outer, collateral longitudinal peripheral line.

14. (Previously Presented) Wearing parts system according to claim 2, wherein the various contact faces comprise a plurality of different inclinations, conicities and roundings, several being parallel but laterally offset.

15. (Currently Amended) Wearing parts system according to claim 2, wherein one or more torque loads caused by the rotation of the ~~wearing and/or~~ replacement part in relation to the holder part are configured to be absorbed directly or after a certain minor wear by at least one of the front contact zones in interaction with at least ~~the said~~ the rear contact zones on the ~~rear collateral~~ interacting joints.